

# Chemistry, Secondary Certification Option

## Bachelor of Science

Area A: Essential Skills		
Grades of C or better required.		
<a href="#">ENGL 1101</a>	English Composition I	3
<a href="#">ENGL 1102</a>	English Composition II	3
<a href="#">MATH 1113</a>	Precalculus Mathematics	3
Area B: Institutional Options		
<a href="#">COMM 1110</a>	Fundamentals of Speech	3
(Prerequisite for <a href="#">EDUC 2110</a> , <a href="#">EDUC 2120</a> , and <a href="#">EDUC 2130</a> . Grade of C or better required.)		
One of the following electives:		1
<a href="#">COMM 1120</a>	Argumentation and Advocacy	
<a href="#">ENGL 1105</a>	Intro to Greek Mythology	
<a href="#">ENGL 1110</a>	Creative Writing	
<a href="#">GEOL 1000</a>	Natural Hazards	
<a href="#">HIST 1050</a>	Appalachian Hist-Special Topic	
<a href="#">HIST 1051</a>	Sports Hist & Amer Character	
<a href="#">HUMN 1000</a>	Mystery Fiction in Pop Culture	
<a href="#">HUMN 1100</a>	Political and Social Rhetoric	
<a href="#">HUMN 1300</a>	Christian Fiction/Pop Culture	
<a href="#">PHED 1030</a>	Health & Wellness Concepts	
<a href="#">SOCI 1000</a>	Race and Ethnicity in America	
Area C: Humanities/Fine Arts		
Choose one to two ENGL course(s):		3-6

<a href="#">ENGL 2111</a>	World Literature I	
<a href="#">ENGL 2112</a>	World Literature II	
<a href="#">ENGL 2120</a>	British Literature I	
<a href="#">ENGL 2121</a>	British Literature II	
<a href="#">ENGL 2130</a>	American Literature I	
<a href="#">ENGL 2131</a>	American Literature II	
<a href="#">ENGL 2201</a>	Intro to Film as Literature	
If only one ENGL course chosen, add one of the following:		0-3
<a href="#">ARTS 1100</a>	Art Appreciation	
<a href="#">HUMN 1201</a>	Expressions of Culture I	
<a href="#">HUMN 1202</a>	Expressions of Culture II	
<a href="#">MUSC 1100</a>	Music Appreciation	
<a href="#">MUSC 1110</a>	World Music	
<a href="#">MUSC 1120</a>	American Music	
<a href="#">THEA 1100</a>	Theatre Appreciation	
Area D: Science/Mathematics/Technology		
<a href="#">MATH 2253</a>	Calculus and Analytic Geom I *	4
<a href="#">PHYS 2211K</a>	Principles of Physics I	4
or <a href="#">PHYS 1111K</a>	Introductory Physics I	
<a href="#">PHYS 2212K</a>	Principles of Physics II	4
or <a href="#">PHYS 1112K</a>	Introductory Physics II	
Area E: Social Sciences		
<a href="#">HIST 2111</a>	United States History to 1877	3
or <a href="#">HIST 2112</a>	United States Hist since 1877	

<a href="#">POLS 1101</a>	American Government	3
Two of the following electives:		6
<a href="#">ANTH 1103</a>	Intro to Cultural Anthropology	
<a href="#">ECON 2105</a>	Principles of Macroeconomics	
<a href="#">ECON 2106</a>	Principles of Microeconomics	
<a href="#">GEOG 1100</a>	Introduction to Geography	
<a href="#">GEOG 1101</a>	Intro to Human Geography	
<a href="#">GEOG 1111</a>	Intro to Physical Geography	
<a href="#">HIST 1111</a>	World Civilization to 1650 CE	
<a href="#">HIST 1112</a>	World Civilization since 1650	
<a href="#">HIST 2111</a>	United States History to 1877	
<a href="#">HIST 2112</a>	United States Hist since 1877	
<a href="#">PHIL 1103</a>	Intro to World Religions	
<a href="#">PHIL 2010</a>	Intro to Philosophical Issues	
<a href="#">PHIL 2020</a>	Logic and Critical Thinking	
<a href="#">POLS 2101</a>	Intro to Political Science	
<a href="#">POLS 2201</a>	State and Local Government	
<a href="#">POLS 2301</a>	Comparative Politics	
<a href="#">POLS 2401</a>	International Relations	
<a href="#">PSYC 1101</a>	Introduction to Psychology	
(Prerequisite for <a href="#">EDUC 2110</a> , <a href="#">EDUC 2120</a> , and <a href="#">EDUC 2130</a> . Grade of C or better is required.)		
<a href="#">PSYC 2101</a>	Psychology of Adjustment	
<a href="#">PSYC 2103</a>	Human Development	
<a href="#">SOC 1101</a>	Introduction to Sociology	

<a href="#">SOC1 1160</a>	Social Problems	
Area F: Major Related		
<a href="#">BIOL 1107K</a>	Principles of Biology I	4
<a href="#">CHEM 1211K</a>	Principles of Chemistry I **	4
<a href="#">CHEM 1212K</a>	Principles of Chemistry II **	4
<a href="#">CHEM 2000</a>	Scientific Communication	2
<a href="#">MATH 2254</a>	Calculus and Analytic Geom II	4
Upper Level Core Curriculum		
<a href="#">CHEM 3211K</a>	Organic Chemistry I	4
<a href="#">CHEM 3212K</a>	Organic Chemistry II	4
<a href="#">CHEM 3311K</a>	Quantitative Analysis	4
<a href="#">CHEM 3312K</a>	Instrumental Methods of Analys	4
<a href="#">CHEM 3411K</a>	Physical Chemistry I	4
<a href="#">CHEM 4000</a>	Senior Seminar	2
<a href="#">CHEM 4110K</a>	Advanced Inorganic Chemistry	4
Upper Level Elective		
Choose one of the following upper level electives:		3-4
<a href="#">CHEM 3500</a>	Biochemistry	
<a href="#">CHEM 3700K</a>	Environmental Chemistry	
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Education Courses		
Prior to enrollment in <a href="#">EDUC 2110</a> , <a href="#">EDUC 2120</a> , and <a href="#">EDUC 2130</a> , students must have taken <a href="#">PSYC 1101</a> , <a href="#">COMM 1110</a> , and Area A courses with grades of C or better. Approved Background check, proof of professional Liability Insurance, completion of the mandated reporter training course, and a passing score on an Ethics assessment are also required. <a href="#">EDUC 2110</a> , <a href="#">EDUC 2120</a> , <a href="#">EDUC 2130</a> must be completed with grades of C or better prior to acceptance into PES 1.		

<a href="#">EDUC 2110</a>	Investig Critical/Contem Issue (Includes 10 hrs of practicum)	3
<a href="#">EDUC 2120</a>	Expl Socio-Cultural Perspect (Includes 10 hrs of practicum)	3
<a href="#">EDUC 2130</a>	Exploring Learning/Teaching (Includes 10 hrs of practicum)	3
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Professional Education Semester 1 (PES I) - Fall Semester		
Prior to enrollment in PES I courses, students must be accepted to the Teacher Education Program and have completed <a href="#">CHEM 1211K</a> and <a href="#">CHEM 1212K</a> with grades of C or better.		
<a href="#">EDUC 3272</a>	Class Mgmt Sec Ed Field Exp I	2
<a href="#">EDUC 3902</a>	Curric/Asses Secondary Teacher	3
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Professional Education Semester 2 (PES II) - Spring Semester		
Prior to enrollment in PES II courses, students must have completed <a href="#">EDUC 3902</a> and <a href="#">EDUC 3272</a> with grades of C or better.		
<a href="#">EDUC 3273</a>	Class Mgmt Sec Ed Field Exp II	2
<a href="#">EDUC 4901</a>	Methods/Strat Teach Sec Stu	3
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Professional Education Semester 3 (PES III) - Fall Semester		
Prior to enrollment in PES III, students must have completed <a href="#">EDUC 3273</a> and <a href="#">EDUC 4901</a> with grades of C or better.		
<a href="#">EDUC 3120</a>	Teaching Diverse Learners(Sec)	3
<a href="#">EDUC 3274</a>	Class Mgm Sec Ed Field Exp III	2
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Professional Education Semester 4 (PES IV) - Spring Semester		
Prior to enrollment in PES IV, students must have completed <a href="#">EDUC 3120</a> , <a href="#">EDUC 3274</a> , and 24 credit hours of Chemistry with grades of C or better.		
<a href="#">READ 3456</a>	Reading across Curric Sec Educ	3

<a href="#">EDUC 4953</a>	Teaching Internship Seminar	1
<a href="#">EDUC 4954</a>	Internship Sec School Chem	8
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Physical Education		
PHED Activity Elective		1
Total Hours		127- 128

\* MATH 2253 may be taken in Area A if the student meets the prerequisites, with MATH 2254 then taken in Area D. The additional hour of credit will be applied to the upper level curriculum.

\*\* CHEM 1211K and CHEM 1212K must be completed with grades of C or better.

\*\* Prior to enrollment in EDUC 2110 and EDUC 2120 students must have taken ENGL 1101. For EDUC 2130, students must have taken ENGL 1101 and PSYC 1101 with grades of C or better. Approved Background check, proof of professional Liability Insurance, completion of the mandated reporter training course, and a passing score on an Ethics assessment are also required. EDUC 2110, EDUC 2120, EDUC 2130 must be completed with grades of C or better prior to acceptance into PES 1.