

**BEACON PROGRAM CHECKLIST
SECONDARY
CHEMISTRY CERTIFICATION (Grades 9-12)**



Education department

GENERAL EDUCATION

38 – 47 hrs

The general education component is to be completed according to Columbia College degree requirements. (Please refer to your entrance year catalog for specific degree requirements.)

LIBERAL ARTS AND SCIENCE DEGREE

40 – 63 hrs

Secondary Education majors may choose from the following recommended degree areas.

- BA – American Studies
- BA – Biology
- BS – Biology
- BA – Business Administration
- BS – Business Administration
- BA – Chemistry
- BA – English
- BS – Environmental Science
- BA – History
- BS – Mathematics
- BA - Sociology

Students must complete the degree requirements as set forth by Columbia College. Hours required for completion will vary depending on area chosen. (Please refer to your entrance year catalog for specific degree requirements.)

CONTENT AREA COURSEWORK FOR CHEMISTRY

32 hrs minimum

Grade	Course #	Course Title	Cr Hrs
History/Philosophy of Science and Technology (2 hrs min)			
	HIST 303	History and Philosophy of Modern Science	3
Twenty (20) hours in Chemistry coursework from the following areas:			
	CHEM 322	Inorganic Chemistry (<i>Inorganic Chemistry</i>)	3
	CHEM 306	Analytical Chemistry I (<i>Analytical Chemistry</i>)	3
	CHEM 310	Organic Chemistry I (<i>Organic Chemistry</i>)	3
	CHEM 310L	Organic Chemistry Laboratory	2
	CHEM 401	Introduction to Physical Chemistry/Chemical Physics (<i>Physical Chemistry</i>)	3
	CHEM 420	Biochemistry (<i>Biochemistry</i>)	3
	CHEM 420L	Biochemistry Laboratory	2
	Electives:	Chemistry Electives to complete the 20-hr minimum	0-2
Ten (10) hours of additional Science coursework from the following areas:			
	PHYS 111	College Physics (<i>Physics</i>)	3
	BIOL 110	Principles of Biology I (<i>Biology</i>)	3
	GEOL 110	Introduction to Physical Geology (<i>Earth Science</i>)	3
	ENVS 115	Introduction to Environmental Science (<i>Environmental Science</i>)	3
	Electives:	Science Electives to complete the 10-hr minimum	0-2

[The College reserves the right to alter at any time requirements to meet state certification regulations.]

PROFESSIONAL EDUCATION COURSEWORK**53 hrs**

Grade	Course #	Course Title	Cr Hrs	Field Experience (observation hrs) included
	SOCI 270	Minority Cultures and Relations	3	none
	EDUC 100	Introduction to Education (formerly EDUC 102/103)	3	15 hrs
	EDUC 198	Field Experience I*	1	15 hrs
	EDUC 200	Law, Ethics, and Education	3	none
	EDUC 230	Educational Psychology	3	none
	EDUC 298	Field Experience II*	1	15 hrs
	EDUC 300	Techniques of Teaching	3	15 hrs
	EDUC 390	Education & Psychology of the Exceptional Child	3	none
	EDUC 392	Adolescent Psychology	3	none
Admission to the Teacher Certification Program (See Teacher Certification Program Checklist)				
	EDUC 311	Classroom Management Techniques	3	15 hrs
	EDUC 322	Educational Measurement and Assessment	3	none
	EDUC 338	Teaching Reading in the Content Areas & Secondary Schools	3	15 hrs
	EDUC 365	Teaching Middle School and Secondary Science	3	15 hrs
	EDUC 375	Advanced Content Methods	3	15 hrs
	EDUC 400	Senior Seminar	3	none
Approval for Student Teaching (See Student Teaching checklist)				
	EDUC 422	Student Teaching in the Secondary Schools	12	16 weeks
		Total Credit Hours	53	
Approval for DESE Certification recommendation (See DESE Certification checklist)				

*If EDUC 200 and 230 were taken previously with field experience (Aug 2010 – July 2013), EDUC 198 and 298 are not required.

**Evening Campus students must transfer to the Day Program in order to enroll in student teaching.

NOTE: To take any course listed with a field experience component, student must submit application forms by the deadline (semester BEFORE desired enrollment). See Education Office for deadline information.

Retention Criteria:

- Complete at least 6 hours of professional education each year
- Complete Field Experiences and receive favorable evaluations from cooperating teachers and faculty supervisors
- Maintain a cumulative GPA of 2.75 or above after acceptance to the program
- Maintain a cumulative GPA of 3.0 or above in professional education courses and content area courses

*This is not a degree checklist

Rev. 08/2015

[The College reserves the right to alter at any time requirements to meet state certification regulations.]