

**BEACON PROGRAM CHECKLIST
SECONDARY
MATH 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 MATH

30 hrs minimum

Grade	Course #	Course Title	Cr Hrs
Calculus and Geometry (8 hrs)			
	MATH 201	Calculus and Analytical Geometry I	5
	MATH 222	Calculus and Analytical Geometry II	5
	MATH 150	College Algebra (<i>Algebraic Structures 3 hrs</i>)	3
	MATH 331	Foundations of Geometry (<i>Geometry 3 hrs</i>)	3
	Choose:	CISS 176 - Introduction to Computer Science or CISS 145 - Introduction to Python Programming (<i>Computer Science 2 hrs</i>)	3
	Electives:	Math Electives (1-4) hours from the above listed categories to reach 20-hr minimum.	1-4
Minimum ten (10) hrs from at least three of the following areas:			
	MATH 330	History of Mathematics (<i>History of Mathematics</i>)	3
	MATH 102	Math for the Elementary School Teacher (<i>Structure of the Real/Number System</i>)	3
	MATH 305	Number Theory (<i>Number Theory 2-3 hrs</i>)	3
	MATH 300	Multivariate Calculus (<i>Completion of Calculus Sequence 2-5 hrs</i>)	3
	Choose:	MATH 250 - Statistics I or MATH 338 - Mathematical Statistics and Probability (<i>Probability and Statistics 2-3 hrs</i>)	3
	CISS 240	Introduction to Programming (<i>Computer Science 2-5 hrs</i>)	3

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

	EDUC 514	Mathematics for the Special Needs Child (remedial) is available at the graduate level for MAT Post-Baccalaureate students. (<i>Math for Exceptional Children 2-3 hrs</i>)	3
	MATH 303	Linear Algebra (<i>Linear Algebra</i>)	3

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 360	Teaching Mathematics in the Secondary School	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

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