

# Secondary Education with Mathematics Course Plan

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Catalogue year: \_\_\_\_\_

You must meet the Education Department's requirements, the Mathematics Department's requirements, and the College's Liberal Studies requirements. This plan keeps track. Develop it in consultation with your advisor and the two Department Chairs. Submit it before the preregistration period of the Fall semester of your second year. *Your advisor will not approve you for registration until you have this plan signed by both the Education Chair and the Mathematics Chair.*

**Step One: fill out your plan.** Fill out the table below for all four years, including courses that you have already taken (the fifth line is optional). See the sample plan on the back of this form and the program descriptions on the attached sheet. For instance, in Fall of Year 1 you might start with "MA 150." For Liberal Studies courses just write "LSC" since in a given semester you will decide which of those to take by working around the times of your Math and Education classes.

	FALL	SPRING
YEAR 1	_____	_____
YEAR 2	_____	_____
YEAR 3	_____	_____
YEAR 4	_____	_____
	_____	_____

**Step Two: verify your plan.** For each course below, write the semester. For instance, next to MA 150 you may write "1 Fa." If you are not taking a course but instead substituting for it, write the substituting course, such as "ED 325." When you count the Liberal Studies courses just put a check.

MATHEMATICS	EDUCATION	LIBERAL STUDIES
MA 150 _____	ED 231 _____	First Year Seminar _____
MA 160 _____	ED 271 _____	Philosophy _____
MA 211 _____	ED 343 _____	Christian Traditions _____
MA 213 _____	ED 361 _____	Christian Traditions _____
MA 240 _____	ED 367 _____	Global Issues _____
MA 251 _____	ED 450 _____	History _____
MA 410 _____	ED 370 _____	Literary Studies _____
MA 401 or 406 _____	ED 423 _____	Lab Science _____
MA 200+ _____	ED 424, 430 _____	Quantitative _____
MA 200+ _____		Social _____
MA topic 300+ _____		Arts _____
MA 400+ _____		Language _____
CS 111 _____		Language _____

**Step Three: special circumstances.** List your transfer course credits, including languages and including summer courses. If you are studying abroad, say in which semester you will go. If you play a sport and it affects your course selections then name the sport and say whether it happens in the Fall or Spring.

**Step Four: file your plan.** Get this signed by both Chairs and return it to your Math advisor.

Education Chair: \_\_\_\_\_ Mathematics Chair: \_\_\_\_\_ Date: \_\_\_\_\_

**Sample program** This is an example of a plan, for illustration (your plan will probably differ). It meets all the requirements and graduates the student in four years, with majors in both Mathematics and Secondary Education.

	FALL	SPRING
YEAR 1	MA 150, CS 111, LSC, Lang	MA 160, ED 231, LSC, Lang
YEAR 2	MA 211, MA 213, ED 271, LSC	MA 240, MA 251, MA 381, ED 361
YEAR 3	MA 304, MA 401, ED 343, LSC	MA 410, MA 403, LSC
YEAR 4	MA 308, ED 370, 2 LSC	ED 424, ED 430

Here is the check.

MATHEMATICS	EDUCATION	LIBERAL STUDIES
MA 150 <u>1 Fa</u> _____	ED 231 <u>1 Sp</u> _____	First Year Seminar <u>✓</u> _____
MA 160 <u>1 Sp</u> _____	ED 271 <u>2 Fa</u> _____	Philosophy <u>✓</u> _____
MA 211 <u>2 Fa</u> _____	ED 343 <u>3 Fa</u> _____	Christian Traditions <u>✓</u> _____
MA 213 <u>2 Fa</u> _____	ED 361 <u>2 Sp</u> _____	Christian Traditions <u>✓</u> _____
MA 240 <u>2 Sp</u> _____	ED 367 <u>2 Sp, MA 381</u>	Global Issues <u>3 Fa, ED 370</u>
MA 251 <u>2 Sp</u> _____	ED 450 <u>4 Fa, MA 308</u>	History <u>✓</u> _____
MA 410 <u>3 Sp</u> _____	ED 370 <u>4 Fa</u> _____	Literary Studies <u>✓</u> _____
MA 401 or 406 <u>3 Fa, MA 401</u>	ED 423 <u>2 Sp, MA 381</u>	Lab Science <u>✓</u> _____
MA 200+ <u>3 Fa, MA 304</u>	ED 424, 430 <u>4 Sp</u> _____	Quantitative <u>1 Fa, MA 150</u>
MA 200+ <u>4 Fa, MA 308</u>		Social <u>1 Sp, ED 231</u>
MA topic 300+ <u>2 Sp, MA 381</u>		Arts <u>✓</u> _____
MA 400+ <u>3 Sp, MA 403</u>		Language <u>✓</u> _____
CS 111 <u>1 Fa</u> _____		Language <u>✓</u> _____

This student did not transfer in any Calculus credit, takes both Language courses, and takes no summer courses. With those baseline assumptions, this program lists 30.5 courses (so the student must pick up another full course sometime). Note that meeting the Mathematics and Education requirements automatically meets three LSC requirements.

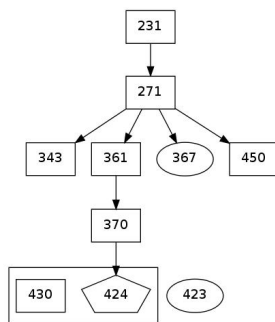
## Courses in Education and Mathematics

This sheet may help you develop your plan; when you submit your plan, detach it. Note that the descriptions of when courses are offered are only typical and often change. Check with your advisor and the departments.

### Education courses

TITLE	NOTES
231 Schools and Society	Take in first year if possible.
241 Literature for Children and Adolescents	
251 Child Development in a Culturally Responsive Classroom	Can be concurrent with ED 251.
271 Adolescent Development in a Culturally Responsive Classroom	Can be concurrent with ED 231, with instructor or Chair permission.
300 Teaching Social Studies and the Arts	
325 Teaching Elementary School Mathematics and Science	Math may allow this to substitute for a Math requirement on a case-by-case basis; consult with your Math advisor or Chair.
335 Literacy in the Elementary Classroom	
339 Making Meaning: Content-Area Literacy	
340 Teaching in Inclusive Elementary Classrooms	
343 Literacy in Secondary Schools	Can be concurrent with ED 361 or 370.
357 Early Childhood Education: Investing in the Future	
361 Curriculum in Middle and High School	
365 Approaches to Teaching the Humanities	Half course.
367 Approaches to Teaching Math, Science & Technology	Half course. Spring. Can substitute MA 381 for this.
370 Teaching in an Inclusive Middle and High School	
380 Topics in Education	
421 Elementary Student Teaching	Three courses. Math may allow this to substitute for a requirement on a case-by-case basis; consult with Math advisor or Chair.
423 Practicum	Half course. Can substitute MA 381 for this.
424 Secondary Student Teaching	Three courses.
427 Inquiry Science Practicum	Half course. Math may allow this as a substitute for MA 410 if that course is precluded.
429 Senior Seminar: Elementary Education	
430 Senior Seminar: Secondary Education	
450 Advanced Topics in Education	Can substitute MA 304 or 308 for this.

### Prerequisite structure for a Secondary Education major

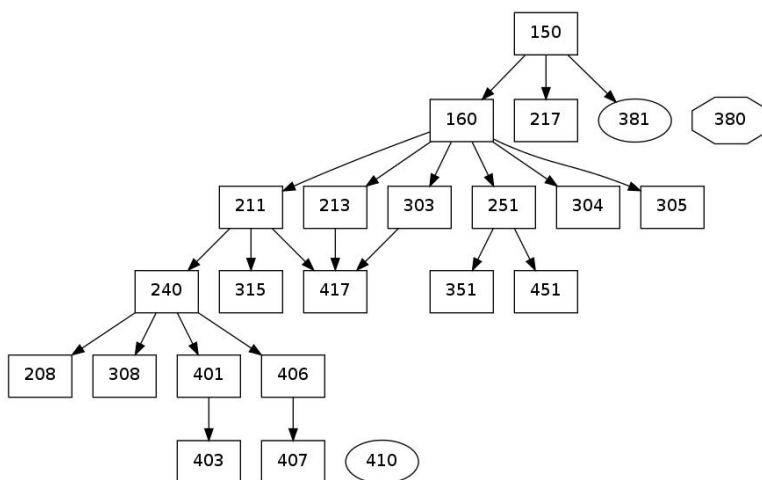


KEY: An oval is a half course, a pentagon is three courses. Boxed courses must be taken together.

## Math courses

	TITLE	NOTES
104	Calculus Concepts with Pre-Calculus	Not for majors.
105	Calculus Concepts	Half course. Not for majors.
120	Elementary Statistics	Not for majors.
130	Elements of Calculus	Not for majors.
150	Calculus I	
160	Calculus II	
207	Discrete Mathematics	Fall.
208	Theory of Computation	Spring.
211	Calculus III	
213	Linear Algebra	Fall.
217	Applied Graph Theory	Spring of even years.
240	Introduction to Mathematical Proof	Spring.
251	Probability and Statistics	Spring.
303	Differential Equations	Spring.
304	History of Mathematics	Fall of even years.
305	Scientific Computing	Spring of odd years.
308	Geometries	Fall of odd years.
315	Complex Analysis	Spring of odd years.
351	Applied Regression Analysis	Fall of odd years.
380	Advanced Topics in Mathematics	Half or full course. Typically fall.
381	Mathematics Education Seminar	Half course. Spring of even years.
399	Mathematics Internship	Half or full course. Meets no requirements for the major.
401	Real Analysis I	Fall of even years.
403	Real Analysis II	Spring of odd years.
406	Abstract Algebra I	Fall of odd years.
407	Abstract Algebra II	Spring of even years.
410	Seminar in Mathematics	Half course. Spring.
417	Applied Mathematics	Spring of even years.
451	Applied Statistical Methods	Fall of even years.
490	Readings and Research in Mathematics	Half or full course.
495	Honors Thesis in Mathematics	

## Prerequisite structure for a Mathematics major



KEY: An oval is a half course. An octagon is sometimes a half course and sometimes a full course.