

Elementary 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 251 _____ | Philosophy _____ |
| MA 211 _____ | ED 300 _____ | Christian Traditions _____ |
| MA 213 _____ | ED 325 _____ | Christian Traditions _____ |
| MA 240 _____ | ED 335 _____ | Global Issues _____ |
| MA 251 _____ | ED 339 _____ | History _____ |
| MA 410 _____ | ED 340 _____ | Literary Studies _____ |
| MA 401 or 406 _____ | ED 427 _____ | Lab Science _____ |
| MA 200+ _____ | ED 421, 429 _____ | 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 Elementary Education.

| | FALL | SPRING |
|--------|-----------------------------|--------------------------------|
| YEAR 1 | MA 150 CS 111, LSC, Lang | MA 160, ED 231, LSC, Lang |
| YEAR 2 | MA 211, MA 213, ED 251, LSC | MA 240, MA 251, MA 381, ED 335 |
| YEAR 3 | MA 304, ED 300, ED 325, LSC | MA 410, ED 339, ED 427, 2 LSC |
| YEAR 4 | MA 308, ED 340, 2 LSC | ED 421, ED 429 |

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 251 <u>2 Fa</u> _____ | Philosophy <u>✓</u> _____ |
| MA 211 <u>2 Fa</u> _____ | ED 300 <u>3 Fa</u> _____ | Christian Traditions <u>✓</u> _____ |
| MA 213 <u>2 Fa</u> _____ | ED 325 <u>3 Fa</u> _____ | Christian Traditions <u>✓</u> _____ |
| MA 240 <u>2 Sp</u> _____ | ED 335 <u>2 Sp</u> _____ | Global Issues <u>3 Fa, ED 300</u> |
| MA 251 <u>2 Sp</u> _____ | ED 339 <u>3 Sp</u> _____ | History <u>✓</u> _____ |
| MA 410 <u>3 Sp</u> _____ | ED 340 <u>4 Fa</u> _____ | Literary Studies <u>✓</u> _____ |
| MA 401 or 406 <u>3 Fa, ED 325</u> | ED 427 <u>3 Sp</u> _____ | Lab Science <u>✓</u> _____ |
| MA 200+ <u>3 Fa, MA 304</u> | ED 421, 429 <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>ED 421</u> | | Language <u>✓</u> _____ |
| CS 111 <u>1 Fa</u> _____ | | Language <u>✓</u> _____ |

This student has no Calculus credit transferred in, no Language course credit, and takes no summer courses. With those baseline assumptions, the program lists 31.5 courses (so this student must pick up a half or full course sometime). Meeting the Mathematics and Education requirements automatically meets three LSC requirements, as shown in the check.

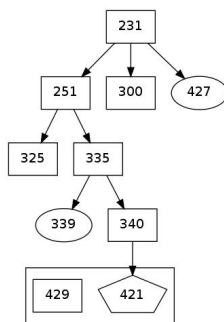
Courses in Education and Mathematics

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 an Elementary Education major

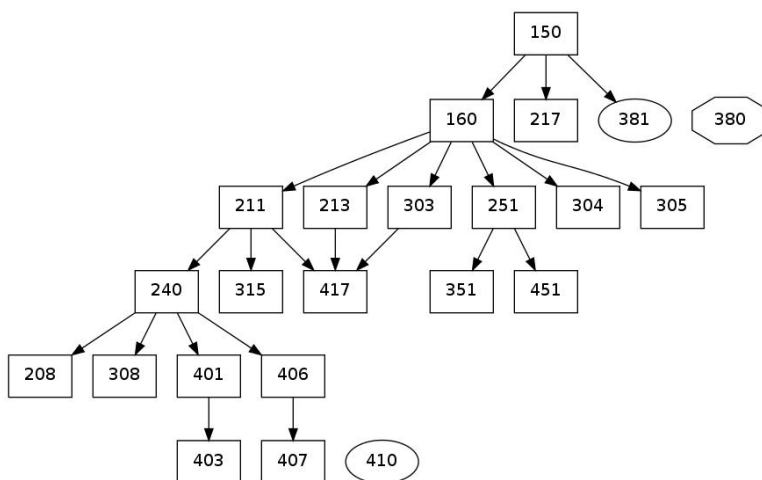


KEY: An oval is a half course, a pentagon is three courses. Boxed courses must be taken together.

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.