



DEGREE WORKSHEET FOR: BS Mathematics: Secondary Teaching Emphasis 2016-2017 Catalog Degree Requirements – 120 credits

YEAR 1- FALL (14 credits)		YEAR 1- SPRING (16 credits)	
ENG 122 College Composition (LAC Area 1a)	3 credits	MATH 132 Calculus II (LAC Area 2)	4 credits
MATH 131 Calculus (LAC Area 2)	4 credits	MATH 228 Discrete Mathematics	3 credits
CG 120 Computer Programming	3 credits	ENG 225 Communications on a Theme (LAC Area 1b) ^a	3 credits
MATH 102 Success in Mathematical Sciences– suggested elective ^b	1 credit	Liberal Arts Core ^a	6 credits
Liberal Arts Core	3 credits		
YEAR 2- FALL (15 credits)		YEAR 2-SPRING (15 credits)	
MATH 233 Calculus III	4 credits	MATH 350 Elementary Probability Theory	4 credits
MATH 221 Elementary Linear	3 credits	MATH 341 Intro. to Modern Geometry	3 credits
Liberal Arts Core ^a	7 credits	<i>STEP 161 Observation and Analysis of Sec. Teaching I</i>	2 credits
MED 272 Mathematical Tutoring – suggested elective ^b	1 credit	<i>EDF 366 Conceptions of Schooling</i>	3 credits
<i>EDFE 110 Initial PTEP Application</i>	0 credits	Liberal Arts Core ^a	3 credits
YEAR 3- FALL (15 credits)		YEAR 3- SPRING (17 credits)	
MATH 321 Intro. to Abstract Algebra^f	3 credits	Math Elective*	3 credits
Math Elective*	3 credits	Math Elective*	3 credits
Liberal Arts Core ^a	7 credits	MED 341 Principles of Teaching Mathematics^s	3 credits
University Elective(s) ^b	2 credits	<i>STEP 262 Observation and Analysis of Sec. Teaching II</i>	2 credits
		<i>EDSE 360 Adaptations/Modifications & Integration</i>	3 credits
		<i>PSY 349 Ed. Psychology for Secondary Teachers</i>	3 credits
		<i>EDFE 120 Full Admission to PTEP Application</i>	0 credits
YEAR 4- FALL (14 credits)		YEAR 4- SPRING (14 credits)	
Math Elective*	3 credits	<i>STEP 464 Secondary Student Teaching</i>	14 credits
MED 441 Methods of Teaching Mathematics	3 credits		
<i>STEP 363 Clinical Experience-Secondary EDRD</i>	2 credits		
<i>340 Secondary Content Area Literacy</i>	3 credits		
<i>ET 449 Educational Technology Applications</i>	3 credits		
<i>EDFE 130 Student Teaching Application</i>	0 credits		

*Students choose 4 of the following 6 classes below. Note the classes are arranged by the semester they are offered.

Math Elective Courses – Fall Semester	Math Elective Courses – Spring Semester
MATH 317 Mathematical Foundations for Teachers	MATH 322 Intro. to Abstract Algebra II
MATH 342 Intro. to Modern Geometry II	MATH 351 Elementary Statistics Theory
MATH 437 Mathematical Modeling ^c	MATH 464 Intro. to History of Mathematics ^c

^cStudents must choose at least one of MATH 464 or MATH 437
Notes-see page2.

BS Mathematics – Secondary Teaching Emphasis (cont.)

Admission Requirement – See Professional Teacher Education Program (PTEP) section in current Catalog for admission requirements. Equivalent of four years of high school mathematics that will enable student to begin a study of calculus.

Minor Required – No Minor required.

Contact Information – School of Mathematical Sciences

Ross Hall Room 2239, 970-351-2820

School Web Page: <http://www.unco.edu/NHS/mathsci>

This worksheet is a recommended schedule to complete your bachelor's degree in 4 years. Every UNC student must meet the following requirements in order to graduate with a bachelor's degree: earn a minimum of 120 semester credit hours; possess a minimum of a 2.00 cumulative grade point average; have at least 40 credit hours in courses designated as Liberal Arts Core; meet all degree requirements in the student's major field of study. Each major and/or emphasis may have additional requirements necessary for graduation. **Students must consult with their major advisor to receive information on any additional graduation requirements.**

Notes

- ^aLiberal Arts Core courses can be taken any semester. It is strongly suggested that they be evenly distributed over the entire 4 years of study rather than concentrated in the first 2 years. **NOTE: You need to complete 40 LAC credits total. Two MATH courses have been pre-designated (8 credits). One writing course (ENG 122) has been pre-designated (3 credits). You must choose another writing course from LAC Area 1b (3 credits), but ENG 225 Communications on a Theme specifically offered for secondary majors is recommended. The remaining electives must fall into LAC Areas 3, 4, 5, 6, 7, and 8. Remember you should select courses from Areas 7 and 8 that also count for Areas 3, 4 or 5.**
- ^bYou need to complete 4 credits of University-wide Electives.
- Courses in **bold** are required Mathematical Science courses.
- Courses in *italics* are required Secondary PTEP courses.
- Any course involving a computer programming language (e.g. CS 102) may be used as a substitute course for CG 120.
- EDFE are PTEP checkpoint courses that need to be completed within the first 8 weeks of the semester.
- Either MCS 101 or SOC 237 is recommended for Liberal Arts Core Area 8.
- Courses marked with ^f are only offered in the fall semester and those marked ^s are only offered in the spring semester. Unmarked courses are offered every semester.

This program prepares students to teach mathematics, such as arithmetic, algebra, geometry, trigonometry, and mathematical analysis and application at the secondary school level (grades 7-12). Graduates of this program are prepared and will be qualified for licensure to teach mathematics in grades 7-12 in the state of Colorado. The program also prepares students for graduate study in mathematics education.