DEGREE WORKSHEET FOR:

BS Mathematics: Secondary Teaching

2022-2023 Catalog

Degree Requirements – 120 credits

YEAR 1- FALL (14 credits)		YEAR 1- SPRING (16 credits)	
ENG 122 College Composition [a] (LAW1*)	3 credits	**MATH 132 Calculus II (LAX1*)**	4 credits
MATH 131 Calculus I (LAX1*)	4 credits	**MATH 228 Discrete Mathematics**	3 credits
CS 120 Computer Programming	3 credits	ENG 225 Communications on a Theme [a] (LAW2*)	3 credits
Liberal Arts Curriculum [a] (choose one LAA1, LAA2, LAA3, or LAA4 that is also a LAMS and/or LAIS*)	3 credits	Liberal Arts Curriculum [a] (choose one LAB1, LAB2 or LAB3 that is also a LAMS and/or LAIS*)	3 credits
MATH 102 Success in Mathematical Sciences [b]	1 credit	Liberal Arts Curriculum [a] (LAH1*)	3 credits
		Application for Initial Admission to PTEP [c]	
YEAR 2- FALL (15 credits)		**YEAR 2-SPRING (15 credits)**	
MATH 233 Calculus III	4 credits	**STAT 355 Introduction to Applied Statistics and Probability** [s]	3 credits
MATH 221 Elementary Linear Algebra	3 credits	**MATH 341 Introduction to Modern Geometry**	3 credits
STEP 161 Observation and Analysis of Sec. Teaching [f]	2 credits	ECLD 360 Second Language Acquisition [d]	3 credits
EDF 366 Conceptions of Schooling	3 credits	Liberal Arts Curriculum [a] (LAS1/LASL*)	4 credits
ECLD 340 Academic Lang/Literacy Devel Sec Content Area	3 credits	University-wide Electives [b]	2 credits
YEAR 3- FALL (15 credits)		**YEAR 3- SPRING (17 credits)**	
MATH 321 Introduction to Abstract Algebra [f]	3 credits	**MATH 464 Introduction to History of Mathematics** [s]	3 credits
MATH Elective [e]	3 credits	**MATH Elective** [e]	3 credits
Liberal Arts Curriculum [a] (LAS1*)	3 credits	***MED 341 Principles of Teaching Mathematics*** [s]	3 credits
Liberal Arts Curriculum [a] (LAA1, LAA2, LAA3, or LAA4*)	3 credits	*STEP 262 Observation and Analysis of Sec. Teaching* [s]	2 credits
University-wide Electives	3 credits	*EDSE 360 Adaptations/Modifications & Integration*	3 credits
Request for Phase II Placement [c]		*PSY 247 Adolescent Learning and Motivation* [g] *(LAB3*)*	3 credits
		Application for Full Admission to PTEP [c]	
YEAR 4- FALL (14 credits)		**YEAR 4- SPRING (14 credits)**	
Math Elective [e]	3 credits	*STEP 464 Secondary Student Teaching*	14 credits
MED 441 Methods of Teaching Mathematics [f]	3 credits		
MED 449 Teaching Mathematics with Technology [f]	3 credits		
STEP 363 Clinical Experience-Secondary [f]	2 credits		
ET 449 Educational Technology Applications	3 credits		
Application for Student Teaching [c]			

[a] Liberal Arts Curriculum (LAC) courses can be taken any semester (see Note 1 on page 2)

[b] You need to complete 3 credits of University-wide Electives (see Note 2 on page 2).

[c] PTEP Applications are due ***early*** in the semester; contact the Math Content Coordinator for specific dates.

[d] Satisfies requirements for Colorado ELL Educator Preparation Standards.

[e] Students choose 3 of the following 4 classes below. Note the classes are arranged by the semester they are offered.

[f] Course is only offered in the fall semester

[s] Course is only offered in the spring semester

[g] PSY 349 Ed. Psychology for Secondary Teachers may be substituted

Notes-see page 2.

BS Mathematics – Secondary Teaching Concentration (cont.)

Math Elective Courses – Fall Semester	Math Elective Courses – Spring Semester
MATH 317 Mathematical Foundations for Teachers	MATH 322 Introduction to Abstract Algebra II
MATH 342 Introduction to Modern Geometry II	
MATH 437 Mathematical Modeling	

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/mathematical-sciences/

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 31 credit hours in courses designated as Liberal Arts Curriculum; meet all degree requirements in the student's major field of study. Each major and/or concentration may have additional requirements necessary for graduation. **Students must consult with their major advisor to receive information on any additional graduation requirements.**

Notes

1 The coursework in the Liberal Arts Curriculum (LAC) should be evenly distributed over the entire 4 years of study rather than concentrated in the first 2 years. **You need to complete a minimum of 31 LAC credits in Written Communication (6 credits), Mathematics (3 credits), Arts & Humanities, History, Social & Behavioral Sciences, U.S. Multicultural Studies, and International Studies (15 credits), and Natural & Physical Sciences (7 credits) according to your catalog description.** One writing course (ENG 122) has been pre-designated (3 credits); you must choose another writing course from LAC GT-CO2 (3 credits), but ENG 225 Communications on a Theme specifically offered for secondary majors is recommended. You are required to take a Natural & Physical Science course with a required lab (4 credits) and without a lab (3 credits). PSY 247 counts as a Social & Behavioral Sciences course (3 credits). The remaining LAC electives include: Arts & Humanities (6 credits), History (3 credits), plus 3 additional credits from any category. In order to complete the LAC with minimum credits, six total credits must be doubled counted as Multicultural Studies (3 credits) and International Studies (3 credits). Example courses that count as MS course are AFS 101, MUS 150, and SOC 237 and as IS courses are a foreign language, MIND 180, and PHIL 126.

2 You need to complete 3 credits of University-wide Electives. MATH 102 Success in Mathematical Sciences and MED 272 Mathematical Tutoring (repeatable) are recommended options.

3 Courses in **bold** are required Mathematical Science courses.

4 Courses in *italics* are required Secondary PTEP courses.

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.

*Liberal Arts Curriculum Course Indicators			
LAA1	Arts & Humanities: Arts & Expression	LAIS	International Studies
LAA2	Arts & Humanities: Literature & Humanities	LAMS	U.S. Multicultural Studies
LAA3	Arts & Humanities: Ways of Thinking	LAS1	Natural & Physical Sciences
LAA4	Arts & Humanities: World Languages	LASL	Natural & Physical Sciences LAB
LAB1	Social & Behavior Sciences: Economic or Political Systems	LAW1	Introductory Written Communication
LAB2	Social & Behavior Sciences: Geography	LAW2	Intermediate Written Communication
LAB3	Social & Behavior Sciences: Human Behavior, Culture or Social Frameworks	LAW3	Advanced Written Communication
LAH1	History	LAX1	Mathematics