DEGREE WORKSHEET FOR:

BS Mathematics: Secondary Teaching Concentration

Degree Requirements – 120 credits

YEAR 1- FALL (14 credits)		YEAR 1- SPRING (16 credits)	
MATH 131 Calculus I (LAX1*)	**4 credits**	**MATH 132 Calculus II (LAX1*)**	**4 credits**
CS 120 Computer Programming OR one of **(MATH 286 Elements of Discrete Mathematics**[f] OR **MATH 228 Discrete Mathematics)**	**3 credits**	**MATH 221 Elementary Linear Algebra**[s]	**3 credits**
MATH 102 Success in Mathematical Sciences[b]	**1 credit**	ENG 225 Communications on a Theme[a] (LAW2*)	3 credits
ENG 122 College Composition[a] (LAW1*)	3 credits	Liberal Arts Curriculum[a] (choose one LAB1, LAB2 or LAB3 that is also a LAMS and/or LAIS*)	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] (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 Intro to Applied Statistics and Probability**[e,s] OR **MATH 317 Mathematical Foundations for Teachers**[o,s]	**3 credits**
one of **(MATH 286 Elements of Discrete Mathematics**[f] OR **MATH 228 Discrete Mathematics)** OR **CS 120 Computer Programming**	**3 credits**	**MATH 391 Introduction to Number Theory**[s]	**3 credits**
STEP 161 Observation and Analysis of Sec. Teaching[f]	2 credits	*ECLD 341* Content-Based Literacy for Equitable Access to PK-12 Instruction	3 credits
EDF 290 Foundations of Education	3 credits	Liberal Arts Curriculum[a] (LAS1/LASL*)	4 credits
ECLD 260 Language Acquisition in Multilingual Societies[d] (*LAB3*, LAMS*)	3 credits	University-wide Elective[b]	2 credits
YEAR 3- FALL (15 credits)		**YEAR 3- SPRING (17 credits)**	
MATH 437 Mathematical Modeling[e,f] OR **MATH 321 Introduction to Abstract Algebra**[o,f]	**3 credits**	**MATH 317 Mathematical Foundations for Teachers**[o,s] OR **STAT 355 Intro to Applied Statistics and Probability**[e,s]	**3 credits**
MED 449 Teaching Mathematics with Technology[e,f] OR **MATH 464 Introduction to History of Mathematics**[o,f]	**3 credits**	**MATH 341 Introduction to Modern Geometry**[s]	**3 credits**
PSY 247 Adolescent Learning & Motivation[f,g] *(LAB3*)*	3 credits	**MED 341 Principles of Teaching Mathematics**[s]	**3 credits**
Liberal Arts Curriculum[a] (LAS1*)	3 credits	*STEP 262 Observation and Analysis of Sec. Teaching*[s]	2 credits
Liberal Arts Curriculum[a] (LAA1, LAA2, LAA3, or LAA4*)	3 credits	*EDSE 360 Adaptations/Modifications & Integration*	3 credits
Request for Phase II Placement[c]		University-wide Elective	3 credits
		Application for Full Admission to PTEP[c]	
YEAR 4- FALL (14 credits)		**YEAR 4- SPRING (14 credits)**	
MATH 321 Introduction to Abstract Algebra[o,f] OR **MATH 437 Mathematical Modeling**[e,f]	3 credits	*STEP 464 Secondary Student Teaching*	14 credits
MATH 464 Introduction to History of Mathematics[o,f] OR **MED 449 Teaching Mathematics with Technology**[e,f]	3 credits		
MED 441 Methods of Teaching Mathematics[f]	3 credits		
STEP 363 Clinical Experience-Secondary[f]	2 credits		
ET 449 Integrating Technologies into Sec Ed Pedagogy	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 6 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 Standard and counts as an LAC Multicultural Studies (LAMS)

[e] Course is only offered in even years
[o] Course is only offered in odd years
[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 (does not count as an LAC)

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 –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 emphasis 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, GNDR 101, MUS 150, SOC 221, and SOC 237 and as IS courses are a foreign language, ANT 110, MIND 180, and PHIL 126.

2 You need to complete 6 credits of University-wide Electives. MATH 102 Success in Mathematical Sciences and EDSE 325 Behavioral Dimensions of Students with Exceptionalities I 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 6-12). Graduates of this program are prepared and will be qualified for licensure to teach mathematics in grades 6-12 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