



**DEGREE WORKSHEET FOR:**  
**BS Mathematics: Secondary Teaching Emphasis**  
**with CLD Endorsement**  
**2024-2025 Catalog**  
**Degree Requirements – 130 credits**

| YEAR 1- FALL (17 credits) 2024  |           | YEAR 1- SPRING (16 credits) 2025  |            |
|---|-----------|---|------------|
| ENG 122 College Composition <sup>a</sup> (LAW1*)  | 3 credits | <b>MATH 132 Calculus II (LAX1*)</b>   | 4 credits  |
| <b>MATH 131 Calculus I (LAX1*)</b>  | 4 credits | <b>CS 120 Computer Programming OR MATH 228 Discrete Mathematics<sup>s</sup></b>                     | 3 credits  |
| <b>MATH 286 Elements of Discrete Mathematics<sup>f</sup> OR CS 120 Computer Programming</b>                         | 3 credits | ENG 225 Communications on a Theme <sup>a</sup> (LAW2*)  | 3 credits  |
| Liberal Arts Curriculum <sup>a</sup> (choose one LAA1, LAA2, LAA3, or LAA4 that is also a LAMS and/or LAIS*)        | 3 credits | <u>200 level Language Course (CHIN, FR, GER, JPN, SPAN)<sup>h</sup> (LAA4*)</u>                     | 3 credits  |
| MATH 102 Success in Mathematical Sciences <sup>b</sup>  | 1 credit  | <u>MAS 100 Intro to Mexican American Studies OR MAS 110 Contemporary Chicano Literature (LAMS*)</u> | 3 credits  |
| Liberal Arts Curriculum <sup>a</sup> (LAH1*)  | 3 credits | <i>Application for Initial Admission to PTEP<sup>c</sup></i>  |            |
| YEAR 2- FALL (18 credits) 2025  |           | YEAR 2-SPRING (16 credits) 2026   |            |
| <b>MATH 233 Calculus III</b>  | 4 credits | <b>STAT 355 Introduction to Applied Statistics and Probability<sup>e,s</sup></b>                    | 3 credits  |
| <b>MATH 221 Elementary Linear Algebra<sup>f</sup></b>   | 3 credits | <b>MATH 391 Introduction to Number Theory<sup>s</sup></b>   | 3 credits  |
| <i>STEP 161 Observation and Analysis of Sec. Teaching<sup>f</sup></i>   | 2 credits | <i>ECLD 341 Content-Based Literacy for Equitable Access to PK-12 Instruction</i>                    | 3 credits  |
| <i>EDF 290 Foundations of Education</i>   | 3 credits | Liberal Arts Curriculum <sup>a</sup> (LAS1/LASL*)   | 4 credits  |
| <b>ECLD 260 Language Acquisition in Multilingual Societies<sup>d</sup></b>  | 3 credits | <u>ECLD 380 Intro to Linguistics for CLD Educators</u>  | 3 credits  |
| <u>MAS 275 Education of Mexican American Students OR WLC 390 History &amp; Philosophy of Multilingual Education</u> | 3 credits |   |            |
| YEAR 3- FALL (18 credits) 2026  |           | YEAR 3- SPRING (17 credits) 2027  |            |
| <b>MED 449 Teaching Mathematics with Technology<sup>e,f</sup></b>   | 3 credits | <b>MATH 317 Mathematical Foundations for Teachers<sup>o,s</sup></b>                                 | 3 credits  |
| <b>MATH 437 Mathematical Modeling<sup>e,f</sup></b>   | 3 credits | <b>MATH 341 Introduction to Modern Geometry<sup>s</sup></b>   | 3 credits  |
| Liberal Arts Curriculum <sup>a</sup> (LAS1*)  | 3 credits | <b>MED 341 Principles of Teaching Mathematics<sup>s</sup></b>                                       | 3 credits  |
| <i>PSY 247 Adolescent Learning &amp; Motivation<sup>f,g</sup> (LAB3*)</i>   | 3 credits | <i>STEP 262 Observation and Analysis of Sec. Teaching<sup>s</sup></i>                               | 2 credits  |
| <u>ECLD 400 Methods and Approaches of CLD<sup>f</sup></u>   | 3 credits | <i>EDSE 360 Adaptations/Modifications &amp; Integration</i>   | 3 credits  |
| <u>ECLD 401 CLD Practicum<sup>f</sup></u>   | 3 credits | Liberal Arts Curriculum <sup>a</sup> (choose one additional LAA, LAH or LAB*)                       | 3 credits  |
| <i>Request for Phase II Placement<sup>c</sup></i>   |           | <i>Application for Full Admission to PTEP<sup>c</sup></i>   |            |
| YEAR 4- FALL (14 credits) 2027  |           | YEAR 4- SPRING (14 credits) 2028  |            |
| <b>MATH 321 Introduction to Abstract Algebra<sup>o,f</sup></b>  | 3 credits | <i>STEP 464 Secondary Student Teaching</i>  | 14 credits |
| <b>MATH 464 Introduction to History of Mathematics<sup>o,f</sup></b>  | 3 credits |   |            |
| <b>MED 441 Methods of Teaching Mathematics<sup>f</sup></b>  | 3 credits |   |            |
| <i>STEP 363 Clinical Experience-Secondary<sup>f</sup></i>   | 2 credits |   |            |
| <i>ET 449 Integrating Technologies into Sec Ed Pedagogy</i>   | 3 credits |   |            |
| <i>Application for Student Teaching<sup>c</sup></i>   |           |   |            |

<sup>a</sup> Liberal Arts Curriculum (LAC) courses can be taken any semester (see Note 1 on page 2)

<sup>c</sup> PTEP Applications are due **early** in the semester; contact the Math Content Coordinator for specific dates

<sup>d</sup> Satisfies requirements for Colorado ELL Educator Preparation Standard and counts as an LAC Multicultural Studies (LAMS)

<sup>e</sup> Course is only offered in even years

<sup>o</sup> Course is only offered in odd years

<sup>f</sup> Course is only offered in the fall semester

<sup>s</sup> Course is only offered in the spring semester

<sup>g</sup> 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 The BA Mathematics: Secondary Teaching Emphasis includes 6 credits of University-wide Electives, but these credits are satisfied with courses taken for the CLD endorsement. Taking MATH 102 adds one credit to the proscribed program.
- 3 Courses in **bold** are required Mathematical Science courses.
- 4 Courses in *italics* are required Secondary PTEP courses.
- 5 Courses underlined are required for the CLD endorsement.
- 6 ECLD 401 includes a 90-hour practicum placement in a local school. Strongly encourage students reduce the credits this semester by taking an LAC course during the summer and/or interim winter term(s). Sometimes, ECLD 260 and ECLD 380 are offered during the summer term.

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.

| <b>*Liberal Arts Curriculum Course Indicators</b> |  |      |                                    |
|---|--|------|------------------------------------|
| 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                        |